

AMENDMENTS TO THE CLAIMS

*500B* (presently amended)  
(currently)

1. A method of diverting communication traffic ~~[H]~~in an optical communication network [comprising] which comprises a[n] first optical transmission link and a first optical reception link[s] extending between a first and a second locations and carrying traffic in normal operation mode from the first location to the second location, and second [protection] transmission link and a second reception link[s] adapted [for] to carrying the traffic [eff]diverted from the first optical transmission and reception links in the event of a fault in at least one of the two first optical links, [a method for managing routing of traffic to the protection links,] which method comprises the steps of:

detecting a fault on a[n] first optical link at the second location;

determining whether ~~[the]~~a total of the energy received over the first reception optical link at the second location exceeds a pre-defined threshold;

*ai* in the case that the total energy thus received does not exceed the pre-defined threshold, ~~[switching]~~ diverting the traffic transmission and reception at the second location [the traffic transmission and reception] to the corresponding protection links;

detecting a fault on a[n] first optical link at the first location;

determining whether ~~[the]~~a total of the energy received via the first optical link at the first location [over the receiving optical link] exceeds [the] a pre-defined threshold; and

in the case that the total energy thus received at the first location does not exceed the pre-defined threshold, ~~[switching]~~ diverting the traffic transmission and reception at the first location [the traffic transmission and reception] to the corresponding [protection] second links.

(currently amended)

2. A method for routing traffic to a protection channel ~~[H]~~in an optical communication network [comprising] which comprises a plurality of telecommunication channels extending between first and second locations, the telecommunication channels comprising a plurality of channels for carrying traffic in normal operation mode from the first location to the second location and at least one protection channel for carrying traffic [channel] in the event of a fault in at least one of the channels carrying traffic in normal operation mode, [a method for managing routing of traffic to the protection channel], which method compris[ing]es the steps of:

detecting a fault on at least one of the channels carrying traffic in normal operation mode, at the second location;

switching at the second location the transmission and reception paths associated with said at least one failing channel to the at least one protection channel;

detecting a fault on said at least one channel at the first location; and

switching at the first location the transmission and reception paths associated with said at least one ~~failing~~ faulty channel to the at least one protection channel.

3. <sup>(original)</sup> A method according to Claim 2, wherein said at least one protection channel is used for protecting at least one pre-designated channel out of the plurality of telecommunication channels.

4. <sup>(original)</sup> A method according to Claim 2, wherein said at least one protection channel is used for protecting a plurality of telecommunication channels.

5. (Cancelled)

SUB A' 2  
6. <sup>(currently amended)</sup> An optical communication ~~network~~ system comprising a plurality of telecommunication channels extending between first and second locations, the channels comprising a plurality of forward channels for carrying traffic in normal operating mode from the first location to the second location, at least one protection link for carrying the traffic of at least one of said forward channels in the event of fault in said at least one forward channel, wherein ~~when a failure occurs in one or more of said telecommunication~~ in response to a detection of loss of signal in said at least one forward channel[s], traffic designated to be transmitted along said at least one forward channel is diverted to said at least one protection link at each of the first and second locations, independent of detecting a loss of signal at the other of said first and second locations, [a continued operation of the non-failing telecommunication channels is allowed, provided that the overall transmitted energy in said non-failing telecommunication channels exceeds a pre-defined threshold.]

7. (Cancelled)

SUB A' 3  
8. <sup>(currently amended)</sup> An optical communication ~~network~~ system according to Claim 6, further comprising means adapted to monitor the operability of the protection link during normal operation mode of the ~~network~~ system.

9. (Cancelled)

SUB A' 4  
10. <sup>(original)</sup> A method according to Claim 1, further comprising monitoring the operability of the protection link when said protection link is not used for transmission of traffic during normal operation mode.